JAVA OOPS Practice Questions

Ques.1…………………………………………………..

create the class Course with the below Attributes.

courseId- int

courseName- String

courseAdmin- String

quiz- int

handson -int

The above methods should be private ,write getter and setter and parametrized constructor as required.

create class courseProgram with main method.

implement two static methods-

findAvgOfQuizByAdmin method:this method will take array of Course objects and a String value as input parameters.

This method will find out Average (as int) of Quiz questions for given Course Admin (String parametre passed)

This method will return Average if found.if there is no course that matches then the method should return 0.

sortCourseByHandsOn method:

This method will take an Array of Course Objects and int value as input parameters.

This methods should return an Array of Course objects in an

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ascending order of their handson which are less than the given handson(int parameter passed) value. if there is no such course then the method should return null.

The above mentioned static methods should be called from main methods.

for findAvgOfQuizByAdmin method: The main method should print the average if the returned value is not 0. if the returned value is 0 then it should print "No Course found."

for sortCourseByHandsOn method:
    the main method should print the name of the Course from the returned Course object Array if the returned value is not null.if the returned value is null then it should print "No Course found with mentioned attribute."
TestCases:
input1:
111
kubernetes
Nisha
40
10
321
cassandra

Roshini

30

15

457

Apache Spark

Nisha

30

12

987

site core

Tirth

50

20

Nisha

17

output1:

35

kubernetes

Apache Spark

cassandra

input2:

111

kubernetes

Nisha

40

10

321

cassandra

Roshini

30

15

457

Apache Spark

Nisha

30

12

987

site core

Tirth

50

20

Shubhamk

5

output 2:

No Course found

No Course found with mentioned attributes.

Ques.2……………………………………………

create a class Footwear which consists of the below attributes.

 footwearId=int

 footwearName=String

 footwearType=String

price =int

the above attributes should be private.

write getter and setter and parametrised constructor as required.

create the class footwearProgrammm with the main method.

implement the 2 static methods.getCountByType and

getSecondHighestPriceByBrand in the Solution class.

getCountByType method:

  this method will take two input parameters.

array of the Footwear objects and string parameter footwear type.

this method will return the count of the footwears from array of the

footwear objects for the given type of footwear.

if no footwear with the given footwear type is found in the

array of footwear abjects,then the method should return 0.

getSecondHighestPriceByBrand method:

 this method will take 2 input parameters-array of footwear objects
and string parameter inputFootwearName.the method

will return the second highest footwear objects based on the price
from the array of the Footwear objects

whose brand name matches with the input string parameter.

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if no footwear with the given brand is present in the array of the footwear objects,the the method

should return null.

NOTE: no two footwear objects would have the same footwearId.All the searches should be case insensitive.

the above mentioned static methods should be called from the main method.

for getCountByType method- the main method should print the count of the footwears ,if the returned value

is greater than zero. or it should print "Footwear not available";

for getSecondHighestPriceByBrand method-The main method should print price from the returned footwear objects

if the returned footwear object is not null.else it should print "Brand not available".

for example.

112

ABC

25555

 where 112 is the footwear id,ABC is brand name,25555 is price.

TestCases:

100

Sketchers

sneekers

12345

103

Puma

running shoes

10099

102

reebok

Running shoes

5667

101

Reebok

running shoes

5656

99

reebok

floaters

5666

Running shoes

reebok

Sample output:

3

99

reebok

5666

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Sample input2:

100

Puma

sneekers

12345

101

Puma

sneekers

10099

102

Puma

sneekers

5000

102

Reebok

sneekers

8000

104

Puma

floaters

2000

running shoes

bata

Sample output:

Footwear not available

Brand not available

Ques.3..

Create a class called Student with the below attributes:

rollNo - int

name - String

branch - String

score - double

dayScholar - boolean

The above attributes should be private, write getters, setters and parameterized constructor as required.

Create class Solution with main method.

Implement two static methods -findCountOfDayscholarStudents and findStudentwithSecondHighestScore in Solution

class.

findCountOfDayscholarStudents:

This method will take an array of Student objects as an input parameter . This method will calculate and return

the count of Students whose score is greater than 80 and who are all from dayScholar.

If no Student scored greater than 80 and from dayScholar are present in the array of Student objects, then the

method should return 0.

findStudentwithSecondHighestScore:

This method will take an array of Student objects as an input parameter. This method will return the object

of the second highest score student from the array of Student objects who are not from the dayScholar.

If no Student is a dayScholar in the array of Student objects, then the method should return null.

Note : All the searches should be case insensitive.

The combination of dayScholar and score for each student is always unique.

The above mentioned static methods should be called from the main method.

For findCountOfDayscholarStudents method - The main method should print the returned count as it is

if the returned value is greater than 0, else it should print "There are no such dayscholar students".

For findStudentwithSecondHighestScore method - The main method should print the rollNo, name and score

in the below format from the returned object if the retuned value is not null.

rollNo#name#score

If the returned value is null, then it should print "There are no student from non day scholar"

Before calling these static methods in main, use Scanner object to read the values of four Student

objects referring attributes in the above mentioned attribute sequence.

TestCases:

Input:

1001

Ashwa

IT

85

true

1002

Preeti

IT

70

false

1003

Uma

ECE

85

false

1004

Akash

EEE

90

true

Output:

2

1002#Preeti#70.0

Ques.4……………………………………………..

Create a class College with the below attributes.

id-int

name -String

contactNo-int

address-String

pinCode-int

Write the getters and setters and parametrized constructor in the above

mentioned sequence as required.

Create the class Solution with the main method.

Implement the two static methods:

1.findCollegeWithMaximumPincode

2.searchCollegeByAddress

findCollegeWithMaximumPincode method:

Create the Static method in the Solution Class.

This method will take array of the College objects and return the

College object having maximum pincode if found else return null if not

found.

for this method ,main method will print College object with maximum

pincode if the returned value is not null.if the returned value is null ,

then the main method will print "No college found with mentioned attribute".

searchCollegeByAddress method:

Create the Static method in the Solution Class.

This method will take array of College objects as input and address as

input and return College object having the mentioned address if found

else return null if not found.

for this method main method will print College object details as it is ,

if the returned value is not null.if the returned value is null then ,

main method will print "No college found with mentioned attribute".

TestCases:

input 1:

4

109

ACT

2500256

mumbai

695001

107

MCE

2500254

malapuram

612354

113

CTE

2500252

chennai

623145

102

SCT

2500255

AP

523641

AP

OUTPUT1:

id-109

name-ACT

contactNo-2500256

address-mumbai

pincode-695001

id-102

name-SCT

contactNo-2500255

address-AP

pincode-523641

INPUT2:

4

111

MJT

2500251

Calicut

401235

105

MET

2500256

kochi

668745

115

IIT

2500262

banglore

569874

110

ACT

2500263

delhi

687945

delhi

output2:

id-110

name-ACT

contactNo-2500263

address-delhi

pincode-687945

id-110

name-ACT

contactNo-2500263

address-delhi

pincode-687945

Ques.5……………………………………………………

Create a class Motel with the below attributes:

motelId - int

motelName - String

dateOfBooking – String (in the format dd-mon-yyyy)

noOfRoomsBooked – int

cabFacility – String

totalBill- double

The above attributes should be private, write getters, setters and parameterized constructor as

required.

Create class Solution with main method.

Implement one static method – totalNoOfRoomsBooked in Solution class.

totalNoOfRoomsBooked method:

This method will take two input parameter - array of Motel objects and a String parameter.

The method will return the total numbers of rooms booked from array of Motel objects if the cab facility

attribute matches with the given String parameter(cab facility) and the number of rooms booked is

greater than 5.

If no rooms are booked with the above criteria in the array of Motel objects, then the method should

return 0.

Note :

No two Motel object would have the same motelId.

dateOfBooking is stored in the format dd-mon-yyyy(eg. 01-Jan-2022)

The above mentioned static method should be called from the main method.

For totalNoOfRoomsBooked method - The main method should print the total number of booked rooms

as it is, if the returned value is greater than 0, else it

should print "No such rooms booked"

Before calling these static methods in main, use Scanner object to read the values of four Motel objects

referring attributes in the above mentioned attribute sequence.

Next, read the value of one String parameter for capturing the cab facility

TestCases:

Input

_____

1001

M&M

01-Dec-2022

5

Yes

30000

1002

BestStay

10-Jan-2022

3

Yes

27000

1003

Novatel

11-Jun-2022

5

Yes

25000

1004

Chola

01-Sep-2022

7

Yes

72000

Yes

_____

OutPut

_____

7

11-Jun-2022